REMARKS

Claims 1 to 3 and 5 to 10 are pending in the application; claim 4 has been canceled and claim 10 has been added.

Specification

The examiners points out that paragraphs 0003 and 0006 contain grammatical errors. The paragraphs have been revised and corrected.

Claims Analysis

Applicant appreciates the examiner's suggestion in regard to amending the preamble so that an electric power tool is claimed. However, applicant's invention is battery pack and not an electric power tool.

In view of examiner's remarks, applicant has rewritten claim 1 such that only features of the battery pack are used for defining the invention.

Claim Rejections - 35 U.S.C. 112

Claims 1-9 stand rejected under 35 U.S.C. 112, 2nd paragraph, as being indefinite.

In claim 1, the examiner objects to the wording "in a longitudinal direction of the tool housing". The claim language has been amended to define the protective housing of the battery pack so as to have a longitudinal center axis and a longitudinal direction; reference to the tool housing has been eliminated.

In claim 1, "drive motor" has been changed to "electric motor" that has been set forth in the preamble.

In claim 2, attachment to the handle has been eliminated from the claim; instead, it is stated that the battery pack is arranged in a position of use on the electric tool.

In claim 3, the language merely recites that the receiving shoe **is configured** to receive, i.e., a physical configuration of the receiving shoe defined by its function is presented.

Reconsideration and withdrawal of the rejection of the claims 1-9 pursuant to 35 USC 112 are therefore respectfully requested.

Rejection under 35 U.S.C. 102

Claims 1-5 and 7-9 stand rejected under 35 U.S.C. 102(b) as being anticipated by

Hershberger et al. (US 5,977,746).

The cited reference U.S. 5,977,746 discloses a battery pack in which the batteries are packed closely relative to one another (hexagonal close packing). This is clearly shown in the drawings and also disclosed in column 4, lines 17 and 18; column 5, lines 33-35,. As shown in Fig. 4, battery cells are arranged in this way in rows that extend at a slant to the longitudinal axis of the battery pack. Attached Exhibit A shows this type of arrangement in Fig. 1. The line marked by reference letter "a" identifies the longitudinal center axis of the battery pack and the line marked by the reference letter "r" identifies the rows of cells.

When applying the dense packing principle (hexagonal close packing) of cells disclosed in the U.S. 5,977,746, the arrangement illustrated in Fig. 2 is obtained in the case of 12 cells. The rows of cells r extend at a slant to the longitudinal center axis a of the battery pack. Such an arrangement causes cavities, identified in Fig. 2 by reference letter b, within the housing of the battery pack.

Fig. 3 shows an arrangement of cells in accordance with the present invention. The cells are arranged in two rows r that extend parallel to the longitudinal center axis a of the battery pack. When arranging the cells in two rows, no longer the densest possible arrangement (= hexagonal close pack) is provided for the cells so that, for example, the relatively large cavity e remains between the cells which cavity is much larger than the space between the hexagonal close packed cells of Fig. 1. By displacing individual cells away from the two rows r in the outward direction, the battery pack is made wider and the support surface becomes larger. In this wider area, two cells of the rows r are moved outwardly, respectively. The resulting cavities f provided between the cells are larger than the cavities in the hexagonal close pack (Fig. 1).

As illustrated in Figs. 2 and 3, the length of the battery pack according to the invention (Fig. 3) is greater by only a minimal length d in comparison to the battery pack according to Fig. 2 designed in accordance with the principle disclosed in U.S. 5, 977,746. However, the areas c (delimited in Fig. 3 by dashed lines) of such arrangement of the cells in accordance with the present invention are outside of the footprint of the housing of the battery pack so that overall a reduced size of the battery pack is provided while at the

same time great stability against tilting is provided.

An arrangement with parallel rows in the longitudinal direction of the protective housing and with laterally displaced cells is not anticipated by U.S. 5,977,746. Such an arrangement is also not obvious in view of the cited reference. There is no motivation provided in the cited reference to change the proposed hexagonal close pack arrangement, which is obviously a preferred arrangement for space saving and inherent stability considerations, so that the instant claims are unobvious in view of the cited reference.

Reconsideration and withdrawal of the rejection of the claims 1-5 and 7-9 pursuant to 35 USC 102 are therefore respectfully requested.

Rejection under 35 U.S.C. 103

Claim 6 stands rejected under 35 U.S.C. 103(a) as being unpatentable over *Hershberger et al. (US 5,977,746)*.

As discussed above, the present invention is not based on a hexagonal close pack of cells and does not have cells arranged in rows parallel to the longitudinal center axis. As shown in the attached EXHIBIT A, the arrangement of 12 cells according to the invention (Fig. 3) differs significantly from the arrangement of the cited reference (Fig.2).

Claim 6 is not obvious in view of the cited reference.

Reconsideration and withdrawal of the rejection of claim 6 pursuant to 35 USC 103 are therefore respectfully requested.

New Claim 10

Claim 10 is based on original claim 1 and claim 4 and also includes the features that have been added to claim 1 in regard to the configuration of the protective housing.

Claim 10 defines at least one row of cells extending parallel to the longitudinal center axis and at least one of the individual battery cells of each one of the at least one row being displaced laterally outwardly relative to the longitudinal center axis such that a displaced row portion is formed and the support surface over a portion of the protective housing has a widened support surface portion transversely to the longitudinal center axis of the protective housing. Two of the individual battery cells are positioned adjacent to one another in the transverse direction within the displaced row portion.

The cited reference shows neither at least one row of cells extending between the

two end faces of the battery pack parallel to the longitudinal center axis nor does it show a portion of the footprint providing a widened support surface for the battery pack in which two cells are arranged adjacent to one another transversely to the longitudinal center axis.

The inventive arrangement does not correspond to the hexagonal close pack arrangement of U.S. 5,977,746 so that it is not anticipated or made obvious by the cited reference.

CONCLUSION

In view of the foregoing, it is submitted that this application is now in condition for allowance and such allowance is respectfully solicited.

Should the Examiner have any further objections or suggestions, the undersigned would appreciate a phone call or **e-mail** from the examiner to discuss appropriate amendments to place the application into condition for allowance.

Authorization is herewith given to charge any fees or any shortages in any fees required during prosecution of this application and not paid by other means to Patent and Trademark Office deposit account 50-1199.

Respectfully submitted on September 2, 2005,

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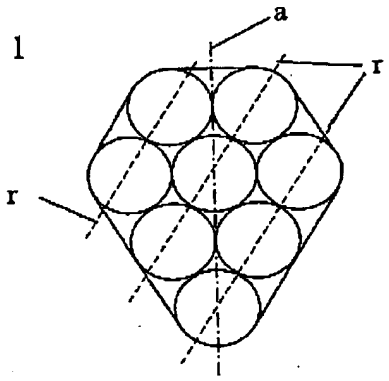
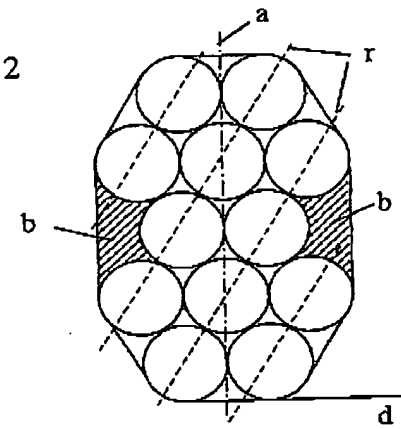
GEH
Encl.: Exhibit A (1 sheet)

Fig. 1



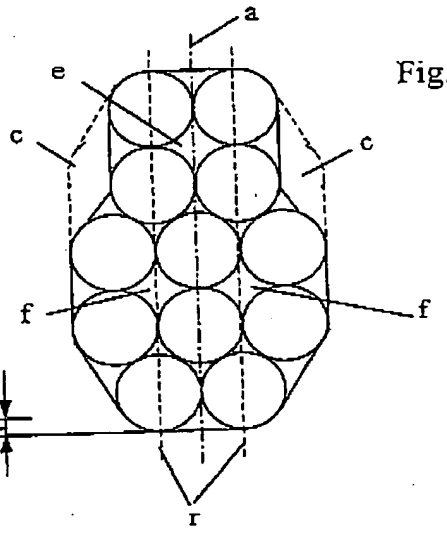
U.S. 5,977,746

Fig. 2



packing according to
U.S. 5,977,746

Fig. 3



packing according to
present invention

EXHIBIT A